Bridges to Stem Cell Research at Pasadena City College

Grant Award Details

Bridges to Stem Cell Research at Pasadena City College

Grant Type: Bridges

Grant Number: TB1-01192

Project Objective: To provide a training program in Stem Cell biology and regenerative medicine.

Investigator:

Name:	Pamela Eversole-Cire
Institution:	Pasadena City College
Type:	PI

Award Value: $3,596,922

Status: Closed

Grant Application Details

Application Title: Bridges to Stem Cell Research

Public Abstract:

The proposed CIRM Bridges to Stem Cell Research Award will support and enhance further development of an existing stem cell biology training program that includes a wide range of internship opportunities, a rigorous curriculum, substantive auxiliary training opportunities, and stem cell techniques coursework at a CIRM-funded Shared Research Laboratory. Based upon the applicant institution's demographics (nearly 76% minorities, 45% low-income, and 47% first-generation) and their experience in biotechnology training, it is anticipated that CIRM Bridges interns recruited for the project will represent the diversity of California's population. The grant project will build upon existing partnerships between the home institution and three outstanding host institutions that have collaborated on earlier projects to enhance stem cell research. Potential interns will be recruited through strong community outreach, including dissemination of General Education modules for stem cell education, inviting students from other colleges and universities to attend seminars and programs, advertising through campus and community media outlets, and support from established biotechnology research and training centers. The CIRM Bridges program will provide up to 30 internships over three years. Internships will last one year. Interns will be required to complete a Certificate of Achievement in Biological Technology (or equivalent) and a Stem Cell Culture Certificate (total of 59 units). The following courses will be added to the curriculum: 1) advanced stem cell techniques (collaboration with a host institution); 2) fluorescent microscopy; and 3) journal club. A stem cell unit will be added to RNA Interference and majors Cell and Molecular Biology courses. General Education stem cell modules will be produced at both the collegiate and secondary level. Interns will be eligible for coursework in stem cell biology at host institutions, including CIRM-funded courses. Auxiliary training will encompass seminars (on topics such as intellectual property, confidentiality and career opportunities), attendance at scientific meetings and symposiums, and research presentations. The training will prepare CIRM Bridges interns to work at various levels in stem cell research labs including laboratory assistant, lab manager, professional staff, and research associates, or to continue in postgraduate programs. The program will offer trainees research opportunities with 40 potential mentors in fields ranging from basic science of stem cells to translational research in regenerative medicine. By combining established programs and partnerships, rigorous curriculum, mentoring at both the home and host institutions, performance evaluations of trainees and program, and experienced leadership and research opportunities at partner institutions, the program will produce highly qualified lab personnel for stem cell research in both academic and industry settings.

Statement of Benefit to California:

The proposed CIRM Bridges to Stem Cell Research Award will fulfill CIRM's objectives to: augment the ranks of laboratory personnel trained in state of the art stem cell research techniques; connect promising trainees with potential employers; and broaden participation in stem cell research by individuals representing the diversity of California's population. The diversity of prospective interns is ensured by both the applicant institution's demographics (nearly 76% are minorities, 45% are low-income, and 47% are first-generation) and their experience with student populations in their biotechnology program. The grant will support and enhance an existing stem cell biology training program that includes: • internship opportunities with 40 potential mentors in fields ranging from basic science of stem cells to translational research in regenerative medicine • up to 30 one-year internships over life of the grant • rigorous curriculum and established Biotechnology Certificate Program • established partnerships between the home and host institutions • substantive auxiliary training opportunities • stem cell techniques coursework at a CIRM-funded Shared Research Laboratory • extensive mentoring and program evaluation strategies • experienced leadership at partner institutions These attributes will ensure that the program produces highly qualified lab personnel from diverse backgrounds for stem cell research in both academic and industry settings.
